



Patent  
Attorney's Docket No. 001560-397

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of )  
Shigeru IIDA et al ) Group Art Unit: 1638  
Application No.: 09/830,123 ) Examiner: Cynthia E. Collins  
Filed: April 24, 2001 ) Confirmation No. 2738  
For: GENES ENCODING PROTEINS )  
REGULATING THE pH OF )  
VACUOLES )

AMENDMENT/REPLY TRANSMITTAL LETTER

Assistant Commissioner for Patents  
Washington, D.C. 20231

Sir:

Enclosed is a reply for the above-identified patent application.

- ☐ A Petition for Extension of Time is also enclosed.
- ☐ A Terminal Disclaimer and a check for ☐ \$55.00 (2814) ☐ \$110.00 (1814) to cover the requisite Government fee are also enclosed.
- ☐ Also enclosed is \_\_\_\_\_.
- ☐ Small entity status is hereby claimed.
- ☐ Applicant(s) request continued examination under 37 C.F.R. § 1.114 and enclose the ☐ \$370.00 (2801) ☐ \$740.00 (1801) fee due under 37 C.F.R. § 1.17(e).
- ☐ Applicant(s) previously submitted \_\_, on \_\_, for which continued examination is requested.
- ☐ Applicant(s) request suspension of action by the Office until at least \_\_, which does not exceed three months from the filing of this RCE, in accordance with 37 C.F.R. § 1.103(c). The required fee under 37 C.F.R. § 1.17(i) is enclosed.
- ☐ A Request for Entry and Consideration of Submission under 37 C.F.R. § 1.129(a) (146/246) is also enclosed.
- ☒ No additional claim fee is required.

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TECH CENTER 1600/2900

(10/02)

☐ An additional claim fee is required, and is calculated as shown below:

| AMENDED CLAIMS   |               |   |              |                    |            |
|--|---------------|---|--------------|--------------------|------------|
|  | NO. OF CLAIMS | HIGHEST NO. OF CLAIMS PREVIOUSLY PAID FOR | EXTRA CLAIMS | RATE               | ADDT'L FEE |
| Total Claims   |               | MINUS =                                   |              | × \$18.00 (1202) = |            |
| Independent Claims   |               | MINUS =                                   |              | × \$84.00 (1201) = |            |
| If Amendment adds multiple dependent claims, add \$280.00 (1203)       |               |   |              |                    |            |
| Total Amendment Fee  |               |   |              |                    |            |
| If small entity status is claimed, subtract 50% of Total Amendment Fee |               |   |              |                    |            |
| TOTAL ADDITIONAL FEE DUE FOR THIS AMENDMENT                            |               |   |              |                    |            |

☐ A claim fee in the amount of \$\_\_\_\_\_ is enclosed.

☐ Charge \$\_\_\_\_\_ to Deposit Account No. 02-4800.

The Commissioner is hereby authorized to charge any appropriate fees under 37 C.F.R. §§ 1.16, 1.17, 1.20(d) and 1.21 that may be required by this paper, and to credit any overpayment, to Deposit Account No. 02-4800. This paper is submitted in duplicate.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

By:

 Donna M. Meuth

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Date: October 10, 2002



#10  
AP 10/16/02

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RESPONSE TO RESTRICTION REQUIREMENT

Assistant Commissioner For Patents  
Washington, D.C. 20231

TECH CENTER 1600/2900

Sir:

In complete response to the Requirement for Restriction issued by the Patent and Trademark Office on September 17, 2002, applicants hereby elect with traverse the invention of Group I, claims 1-8, 11-22 and 31-46 for prosecution in this application. Group I is directed to a gene encoding a protein that has an activity of regulating the pH of plant cell vacuoles, a vector, a host cell, a plant, a cut flower, a method of regulating the pH of vacuoles by introducing and expressing a gene, and a method of controlling flower color by introducing and expressing a gene.

The traversal is based upon the fact that the instant application was filed under §371. Applicants are thus entitled to a "unity of invention standard" for determining restriction. It is respectfully submitted that "unity of invention" exists in the instant case. Group I is related to a gene encoding a protein that has an activity of regulating the pH of plant cell vacuoles, a vector, a host cell, a plant, a cut flower, a method of regulating the pH of vacuoles by introducing and expressing a gene, and a method of controlling flower

color by introducing and expressing a gene. Group II is directed a protein and a method of producing a protein. Group III is drawn to a method of regulating the pH of vacuoles by suppressing expression of the gene, and a method of controlling flower color by suppressing expression of the gene.

The Examiner cited the Gaxiola et al reference as allegedly teaching the technical feature of the invention. This assertion is in error. The cited reference describes that a  $\text{Na}^+/\text{H}^+$  exchanger provides to cells with a resistance to  $\text{Na}^+$ . However, the reference does not describe that the  $\text{Na}^+/\text{H}^+$  exchanger controls the colors of flowers.

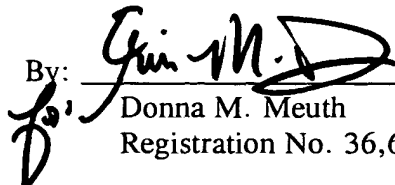
In view of the above, it is respectfully requested that the restriction requirement be withdrawn or at the very least altered.

In the event that there are any questions relating to this amendment or the application in general, it would be appreciated if the Examiner would contact the undersigned attorney at (508) 339-3684.

Early and favorable action in the form of a notice of allowance is respectfully requested.

Respectfully submitted,

BURNS, DOANE, SWECKER & MATHIS, L.L.P.

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